

**WHAT IS CLAIMED IS:**

1. A micro TPV generator comprising:
  - 2 a combustion chamber configured to generate a significantly even
  - 3 temperature distribution on an outer wall thereof,
  - 4 an emitter engaged around or at least in thermal connection to said
  - 5 chamber, and
  - 6 a photovoltaic cell in proximity to said emitter and configured to
  - 7 generate an electrical current depending on photons incident thereon.
2. A micro TPV generator as claimed in claim 1 wherein said chamber including a platinum catalyst coating an inner wall thereof.
3. A micro TPV generator as claimed in claim 2 wherein said outer wall is substantially cylindrical.
4. A micro TPV generator as claimed in claim 3 wherein said chamber including a backwards facing step.
5. A micro TPV generator as claimed in claim 4 wherein said emitter has an emission characteristic matched to the bandgap characteristic of said cell.
6. A micro TPV generator as claimed in claim 5 wherein said emitter formed of Co-/Ni- doped MgO ribbon or tape.
7. A micro TPV generator as claimed in claim 5 wherein said emitter formed of SiC.
8. A micro TPV generator as claimed in claim 5 further comprising a filter between said emitter and said cell configured to pass photons above a threshold and reflect photons under said threshold.
9. A micro TPV generator as claimed in claim 8 wherein said filter comprising a 9 layers of Si-SiO<sub>2</sub> bonded between a glass slide and said cell.
10. A micro TPV generator as claimed in claim 9 wherein said cell formed from a GaSb based semiconductor.

1                   11.    A micro TPV generator as claimed in claim 1 wherein said chamber  
2    having an internal diameter less than 1 mm for hydrogen fuel at compressed pressure.

1                   12.    A micro TPV generator as claimed in claim 1 wherein said chamber  
2    having an internal diameter less than 3 mm for propane at atmospheric pressure.